

Professional and Managerial Branch
Chemical Analysis Group
Chemist Series

QUALITY CONTROL & ASSURANCE CHEMIST

01/00 (LBT)

Summary:

Under direction, as an individual staff expert contributor, coordinate and administer water and wastewater treatment quality control and quality assurance (QC/QA) program.

Typical Duties:

Develop, maintain and enforce compliance with chemical and bacteriological inspection sampling and laboratory analysis methods and standards. Involves: collecting water and wastewater samples from various laboratories to periodically or on an unscheduled basis to audit sampling, testing and measurement processes and results, and check calibration and operation of equipment within prescribed tolerances; conducting tests to detect sources and causes of impermissible deviations or malfunctions by operating atomic absorption analyzer, spectrophotometer and other special laboratory instruments; verifying that each laboratory is adhering to its established QC/QA program procedures and related acceptance rules by examining control charts, data, logbooks, laboratory records, instrument maintenance records and QC documentation; notifying supervisor of audit findings and initiating corrective action to ensure potable water and wastewater quality conforms to federal, state and local technical regulations; monitoring technical developments in chemical testing equipment and procedures, and proposed federal, state and local legislation pertaining to water quality testing regulations and standards; researching and recommending purchase of new laboratory equipment or services, including preparation and evaluation of requests for proposals or quotations and purchase requisitions; writing and updating laboratory manual, and instructing laboratory personnel on new and changed sampling and test procedures as well as maintenance of safe working environments; arranging for and reviewing or personally performing data management of electronic and hard copy sample collection and test results such as report generations, security, dissemination, storage and retrieval records; providing expert testimony in hearings regarding technical issues such as laboratory procedures or audit results; maintaining laboratory equipment, chemicals and other supplies inventories; participating in laboratory budget preparation;

Perform related incidental professional duties contributing to realization of laboratory objectives as required. Includes: substituting for supervisor, or coworkers as qualified and within authorized limits by carrying out specified functions to maintain continuity of ordinary operations, if delegated; serving on designated technical and management committees; providing specified support for miscellaneous projects or activities overseen by higher-graded personnel as instructed; explaining and demonstrating work performed to assist supervisor in orienting and training less knowledgeable employees; engaging in assignments pertaining to functions of other positions for training purposes under general supervision; logging activities, and preparing and submitting recurring or special status reports, or otherwise assisting with laboratory administration; keeping tools, equipment and work area orderly, safe and clean.

MINIMUM QUALIFICATION:

Training and Experience: Graduation from an accredited college or university with a Bachelor's degree in Chemistry, Microbiology, Bacteriology or related field; plus four (4) years increasingly responsible professional chemical laboratory chemical experience including one (1) year of operating an atomic absorption analyzer, and one (1) year conducting laboratory QC/QA inspections; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Considerable knowledge of: chemical analysis laboratory procedures and equipment of the trade, including an atomic absorption analyzer and spectrophotometer; chemistry and bacteriology theories and techniques; safe work practices and hazardous effects of chemicals used,. Good knowledge of: statistics; water and wastewater treatment laboratory QC/QA principles and practices.

Ability to: plan and organize laboratory testing procedures; to determine treated water or wastewater quality by identifying presence and concentration of chemical substances; analyze laboratory test results to develop and modify analytical procedures; assist in budget preparation; prepare and maintain various complex technical records and reports; express oneself clearly and concisely, orally and in writing; establish and maintain effective working relationships with fellow employees, officials and the general public; properly dispose of hazardous wastes and complete required manifests.

Skill in safe operation and care of: laboratory equipment and chemicals; personal computers or network workstation and generic business productivity software, including graphics; motor vehicle.

Physical Requirements: Frequent: exposure to chemicals hazards in laboratories. Occasional: driving through city traffic.

Licenses and Certificates: Texas Class "C" Driver's License or equivalent license issued by another state.

Director of Personnel

Department Head

OFFICIAL